

Der p 1 (SEQ ID NO: 19)

MKIVLAIASLLALSAVYARPSSIKTEFEYKKA FNKSYATFEDEEAAR
KNFLESVKYVQSNNGGAINHLS DLSI DEFKNRFLMSAEAFEHLKTQF
DLNAETNACSINGNAPAEIDLRQMRTVTPIRMQGGCGSCWAFSGV
AATESAYLAYRNQSLDLAEQELVDCASQHGCHGDTIPRGIEYIQHN
GVVQESYYRYVAREQSCRRPNAQRFGISNYCQIYPPNVNKIREALA
QTHSAIAVIIIGIKDLDAFRHYDGRTHIQRDNGYQPNYHAVNIVGYSN
AQQVDYWIVRNSWDTNWGDNGYGYFAANIDLMMIEEYPYVVIL

Der p 2 (SEQ ID NO: 20)

MMYKILCLSLLVAAVARDQVDVKDCANHEIKKVLVPGCHGSEPCII
HRGKPFQLEAVFEANQNTKTAKIEIKASIDGLEVDVPGIDPNACHY
MKCPLVKGQQYDIKYTNVVPKIAPKSENVVVTVKVMGDDGVLAC
AIATHAKIRD

Der p 3 (SEQ ID NO: 21)

MHIYNILIVLLLAINTLANPILPASPNATIVGGEKALAGECPYQISLQS
SSHFCGGTILDEYWILTAAHCVAGQTASKLSIRYNSLKHSLGG EKIS

3. On page 51, please replace all of the text on page 51 with the following text:

VAKIFAHEKYDSYQIDNDIALIKLKSPMKLNQKNAKAVGLPAKGSD
VKVGDQVRVSGWGYLEEGSYSLPSELRRVDIAVVS RKECNELYSKA
NAEVTDNMICGGDVANGGKDSCQGDSGGPVVDVKNNQVVGIVSW
GYGCARKGYPGVYTRVGNFIDWIESKRSQ

Der p 4 (SEQ ID NO: 22)

KYXNPHFIGXRSVITXLME

Der p 5 (SEQ ID NO: 23)

MKFIIAFFVATLAVMTVSGEDKKHDYQNEFDLLMERIHEQIKKGE
LALFY LQEQINHFE EKPTKEMKDKIVAEMDTIHAMIDGVRGVLDRL
MQRKDL DIFEQYNLEMAKKSGDILERDLKKEEARVKKIEV

Der p 6 (SEQ ID NO: 24)

MMKILLLIAAAAFVAVSADPHHYDKITL INKAVDEAVAAIEKSEITED
PMKVDPDHS DKFERHIGIIDLKGELDMRNIQVRGLKQMKRVGDANV
ESLIDGAAKAIHIAVGHIIDVAVSMIYDEAYKEIGDIHPNTHIVSDIQD
EAVETSEIASEIGNMITESEIARQEAANVNIHIGGISEIDPIAVESD
VLTAEFQDITVRAEMTKVLAPAFKKELERNNQ

Der p9 (SEQ ID NO: 26)

IVGGSNASPGDAVYQIAL

Dermatophagoides farinae

Der f1 (SEQ ID NO: 27)

MKFVLAIASLLVLTVYARPASIKTFEFKKA FNKNYATVEEEEVARK

4. On page 52, please replace all of the text on page 52 with the following text:

NFLESLKYVEANKGAINHLSDSLDEFKNRYLMSAEAFEQLKTQFD
LNAETSACRINSVNVPSSELDLRLRTVTPIRMQGGCGSCWAFSGVA
ATESAYLAYRNTSLDLSEQELVDCASQHGCHGDTIPRGIEYIQNG
VVEERSYPYVAREQRCRRPNSQHYGISNYCQIYPPDVKQIREALTQT
HTAIAVIIGIKDLRAFQHYDGRTHQHONGYQPNYHAVNIVGYGSTQ
GDDYWIVRNSWDTTWGD SGYGYFQAGNNLMMIEQYPYVIM

Der f2 (SEQ ID NO: 28)

MISKILCLSLVA AVVADQVDVKDCANNEIKKVMVDGCHGSDPCII
HRGKPFTLEALFDANQNTKTAKIEIKASLDGLEIDVPGIDTNACHFM
KCPLVKGQQYDIKYTNVNPKIAPKSENVVTVKLIGDNGVLACAIA
THGKIRD

Der f3 (SEQ ID NO: 29)

MMILTIVLLAANILATPILPSSPNATIVGGVKAQAGDCPYQISLQSS
SHFCGGSILDEYWILTA AHC VNGQS AKKLSIRYNTLKHASGGEKIQV
AEIYQHENYDSMTIDNDVALIKLKT PMTLDQTN AKPVPLPAQGS DV
KVGDKIRVSGWGYLQEGSYSLPSELQRVDIDVVSREQCDQLYSKAG
ADVSENMICGGDVANGGVDSCQGDSSGGPVVDVATKQIVGIVSWGY
GCARKGYPGVYTRVGNFVDWIESKRSQ

Der f4 (SEQ ID NO: 30)

AVGGQDADLAEAPFQISLLK

Der f7 (SEQ ID NO: 31)

MMKELLIAAVAFVAVSADPIHYDKITEEINKAIDDAIAAIEQSETIDP

VAISLEISDEGNITMISFEVRQFANV VNIHGGI SLDPIFGVLS DVI
TAIFQDTYRKEMTKVLAPAFKRELEKN

8. On page 53, please replace all of the text on page 53 with the following text:

Additional mite allergen sequences (NCBI entrez accession)

1170095; 1359436; 2440053; 666007; 487661; 1545803; 84702; 84699;
625532; 404370; 1091577; 1460058; 7413; 9072; 387592.

Cat

Felis sequences

1082946 Fel dI chain 2 precursor - cat (SEQ ID NO: 32)

MRGALLVLALLVTQALGVKMAETCPIFYDVFFAVANGNELLLDLS
LTKVNATEPERTAMKKIQDCYVENGLISRVLDGLVMTTISSSKDCM
GEAVQNTVEDLKLNTLGR

1082945 Fel dI chain 1 short form - cat (SEQ ID NO: 33)

MLDAALPPCPTVAATADCEICPAVKRDVDLFLTGTPDEYVEQVAQ
YKALPVVLENARILKNCVDAKMTEEDKENALSLLDKIYTSPLC

1082944 Fel dI chain 1 long form precursor - cat (SEQ ID NO: 34)

MKGARVLVLLWAALLLIWGGNCEICPAVKRDVDLFLTGTPDEYVE
QVAQYKALPVVLENARILKNCVDAKMTEEDKENALSLLDKIYTSPL
C

Additional Felis sequences (NCBI entrez accession):

539716; 539715; 423193; 423192; 423191; 423190; 1364213; 1364212;
395407; 163827; 163823; 163825; 1169665; 232086; 1169666.

Latex

Hevea sequences:

6. On page 54, please replace all of the text on page 54 with the following text:

Hev b 1 (SEQ ID NO: 35)

MAEDEDNQGGQGEGLKYLGFVQDAATYAVTTFSNVYLFAKDKSG
PLQPGVDIIEGPVKNVAVPLYNRFSYIPNGALKFVDSTVVASVTHDR
SLPPIVKDASIQVVS AIRAAPEAAARSLASSLPGQTKILAKVFYGEN

Hev b 3 (SEQ ID NO: 36)

MAEEVEEERLKYLD FVRAAGVYAVDSFSTLYLYAKDISGPLKPGV

YAVTHWRAINKIPLVPQVANVVVPEAVYSEKYNDVARGITFQGY
RVSSYLPLLPTEKITKVFGEAS

Additional Hevea sequences (NCBI entrez accession):

8319923; 8319921; 3087805; 1493836; 1480457; 1223884; 348211;
3451147; 1916805; 232267; 123335; 2501578; 3319662; 3288200;

1942537; 2392631; 2392630; 1421554; 1311006; 494093; 3183706; 3172534;
283243; 1170248; 1708278; 1706547; 464775; 266892;
231586; 123337; 116359; 123062; 2213877; 542013; 2144920; 1070656;
2129914; 2129913; 2129912; 100135; 82026; 1076559; 82028; 82027;
282933; 280399; 100138; 1086972; 108697; 1086976; 1086978;
1086978; 1086976; 1086974; 1086972; 913758; 913757; 913756;
234388; 1092500; 228691; 1177405; 18839; 18837; 18835; 18833;
18831; 1209317; 1184668; 168217; 168215; 168213; 168211; 168209;
348137.

Rye grass

Lolium sequences:

126385 Lol p 1 (SEQ ID NO: 37)

On page 55, please replace all of the text on page 55 with the following text:

MASSSSVLLVVALFAVFLGSAHGIKVPVPGPNITAEYGDKWLDAKS
TWYGKPTGAGPKDNGGACGYKNVDKAPFNGMTGCGNTPIFKDGR
GCGSCFEIKCTKPESCSGEAVTVTITDDNEEPIAPYHFDLSGHAFGS
MAKKGEEQNVRSA GELELQFRRVKCKYPDDTKPTFHVEKASNPNY
LAILVKYVDGDGDVVAVDIKEKGKDKWIELKESWGAVWRIDTPDK
LTGPFTVRYTTEGGTKSEFEDVIPEGWKADTSYSAK

126386 Lol p 2a (SEQ ID NO: 38)

AAPVEFTVEKGSDEKNLALSIKYNKEGDSMAEVELKEHGSNEWLA
LKKNGDGVWEIKSDKPLKGPFNFRFVSEKGMNRNVFDDVVPADFKV
GTTYKPE

126387 Lol p 3 (SEQ ID NO: 39)

TKVDLTVEKGSDAKTLVLNIKYTRPGDTLAEVELRQHGSEEWEPM
TKKGNLWEVKSAPLTGPMNFRFLSKGGMKNVFDEVIPTAFTVGK
TYTPEYN

2498581 Lol p 5a (SEQ ID NO: 40)

PSPPRASSPTSAAKAPGLIPKLDLAYDVAYKAAEAHPRGQVRRIRH
CPHRSLRVIAGALVHAVKPATEEVLA AKIPTGELQIVDKIDA AFKI
AAATAANAAPINDKELVETSAENKALNCTGGAMRPISSSPSRPRS
SRPIPPPSPAPEVKYAVFEAAITKALHAMIQAQKAGKPAAAAATA
AATVATAAAATAAATPPPIVVQSLISLIYY

2498582 Lol p 5b (SEQ ID NO: 41)

MAVQKHTVALFLAVALVAGPAASYAADAGYAPATPATPAAPATA
ATPATPATPATPAAVPSGKATTEEQKLIKINAGFKA AVAAAAVVP
PADKYKTFVETFGTATNKAFVEGLASGYADQSKNQLTSKLDAALK

8. On page 56, please replace all of the text on page 56 with the following text:

LAYEAAQGATPEAKYDAYVATLTEALRVIAGTLEVHAVKPAAEEV
KVGAI PAAEVQLIDKVDAA YRTAATAANAAPANDKFTVFENTFNN
AIKVSLGAA YDSYKFIPTLVAAVKQAYAAKQATAPEVKYTVSETAL
KKAVTAMSEAEKEATPAAAATATPTPAAATATATPAAAYATATPA
AATATATPAAATATPAAAGGYKV

455288 Lol p isoform 9 (SEQ ID NO: 42)

MAVQKHTVALFLAVALVAGPAASYAADAGYAPATPATPAAPATA
ATPATPATPATPAAVPSGKATTEEQKLIKINAGFKA AVAAAAVVP
PADKYKTFVETFGTATNKAFVEGLASGYADQSKNQLTSKLDAALK
LAYEAAQGATPEAKYDAYVATLTEALRVIAGTLEVHAVKPAAEEV
KVGAI PAAEVQLIDKVDAA YRTAATAANAAPANDKFTVFENTFNN
AIKVSLGAA YDSYKFIPTLVAAVKQAYAAKQATAPEVKYTVSETAL
KKAVTAMSEAEKEATPAAAATATPTPAAATATATPAAAYATATPA
AATATATPAAATATPAAAGGYKV

1582249 Lol p 11 (SEQ ID NO: 43)

DKGPGFVVTGRVYCDPCRAGFETNVSHNVEGATVAVDCRPFDDGG
ESKLKAEATTDKDGWYKIEIDQDHQEEICEVVLAKSPDKSCSEIEEF
RDRARVPLTSNXGIKQQGIRYANPIAFFRKEPLKECGGILQAY

Additional *Lolium* sequences (NCBI entrez accession):

135480; 417103; 687261, 687259; 1771355; 2388662; 631955; 542131;
542130; 542129; 100636, 626029; 542132; 320616; 320615; 320614;
100638; 100634; 82450; 626028; 100639; 283345; 542133; 1771353;
1763163; 1040877; 1040875; 250525; 551047; 515377; 510911; 939932;

9. On page 57, please replace all of the text on page 57 with the following text:

Olive tree

Olea sequences

416610 Ole e 1 (SEQ ID NO: 44)

EDIPQPPVVSQFHIQGGVYCDTCRAGFITEELSEFIPGASLRLQCKDKEN
GDVTFTEVGYTRAEGLYSMLVE
RDHKNEFCEITLISSGRKDCNEIPTEGWAKPSLKFKLNTVNGTTTRTV
NPLGFFKKEALPKCAQVYNKLG
YPPNM

Parietaria

Parietaria sequences:

2497750 Par J P2 (SEQ ID NO: 45)

MRTVSMAALVVIAAALAWTSSAEPAPAPAPGEEACGKVVQDIMPC
LHFVKGEEKEPSKECCSGTKKLSEEVKTTEQKREACKCIVRATKGIS
GIKNELVAEVPKKCDIKTTLPITADFDCSKIQSTIFRGYY

1352506 Par J P5 (SEQ ID NO: 46)

MVRALMPCLPFVQGKEKEPSKGC'CSGAKRLDGETKTGPQRVHACE
CIQTAMKTYSDIDGKLVSEVPKHC'GIVDSKLPPIDVNMDCCTVGVV
PRQPQLPVSLRHGPVTGPSDPAHKARLERPQIRVPPPAPEKA

1532056 Par J P8 (SEQ ID NO: 47)

MRTVSMAALVVIAAALAWTSSAELASAPAPGEGPCGKVVHHIMPC
LKFVKGEEKEPSKSC'CSGTKKLSEEVKTTEQKREACKCIVAATKGIS
GIKNELVAEVPKKCGITTTLPITADFDCSKIESTIFRGYY

1532058 Par J P9 (SEQ ID NO: 48)

MRTVSAPSAVALVVIVAAGLAWTSLASVAPPAPAPGSEETCGTVVR

10. On page 58, please replace all of the text on page 58 with the following text:

XX

QI PVSI RHGPVTGPSDPAHKARLERPQIRVPPPAPEKA

2497749 Par i P9 (SEQ ID NO: 49)

MRTVSARSSAALAAIAAAIAAWTSSASVAPAPAPGSEETCGTAVGVV

LMPCLPFVQGKEKEPSKGCCSGAKRLDGETKTGPQRVHACECIQTA
MKTYSIDIDGKLVSEVPKHCGIVDSKLPPIDVNMDCKTLGVLHYKG
N

1086003 Par j 1 (SEQ ID NO: 50)

MVRALMPCLPFVQGKEKEPSKGCCSGAKRLDGETKTGPQRVHACE
CIQTAMKTYSIDIDGKLVSEVPKHCGIVDSKLPPIDVNMDCKTVGVV
PRQPQLPVSLRHGPVTGPSRSRPPTKHGWRDPRLEFRPPHRKKPNP
AFSTLG

Additional *Parietaria* sequences (NCBI entrez accession):

543659; 1836011; 1836010; 1311513; 1311512; 1311511; 1311510; 1311509;
240971.

Timothy grass

Phleum sequences:

Phl p 1 (SEQ ID NO: 51)

MASSSSVLLVVVLFVAVFLGSAYGIPKVPPGPNITATYGDKWLDAKS
TWYGKPTGAGPKDNGGACGYKDVDKPPFSGMTGCGNTPIFKSGRG
CGSCFEIKCTKPEACSGEPVVVHITDDNEEPIAPYHFDLSGHAFGAM
AKKGDEQKLRSAGELELQFRRVKCKYPEGTKVTFHVEKGSNPNYL
ALLVKYVNGDGDVVAVDIKEKGKDKWIELKESWGAIWRIDTPDKL

11. On page 59, please replace all of the text on page 59 with the following text:

TGPFTVRYTTEGGTKTEAEDVIPEGWKADTSYESK

Phl p 1 (SEQ ID NO: 52)

TWYGKPTGAGPKDNGGACGYKDVDKPPFSGMTGCGNTPIFKSGRG
CGSCFEIKCTKPEACSGEPVVVHITDDNEEPIAAYHFDLSGIAFGSM
AKKGDEQKLRSAGELELQFRRVKCKYPEGTKVTFHVEKGSNPNYL
ALLVKESGDGDVVAVDIKEKGKDKWIELKESWGAIWRIDTPEVTK

GPFTVRYTTEGGTKARAKDVIPEGWKADTAYESK

Phlp 2 (SEQ ID NO: 53)

MSMASSSSSSLLAMAVLAALFAGAWCVPKVTFTVEKGSNEKHLAV
LVKYEGDTMAEVELREHGSDEWVAMTKGEGGVWTFDSEEPLQGP
ENFRFLTEKGMKNVFDVPEKYTIGATYAPEE

Phl p 5 (SEQ ID NO: 54)

ADLGYGGPATPAAPAEAAPAGKATTEEQKLIEKINDGFKAALAAA
AGVPPADKYKTFVATFGAASNKAFAEGLSAEPKGAAESSSKAALTS
KLDAAAYKLAYKTAEGATPEAKYDAYVATLSEALRIIAGTLEVHAV
KPAAEEVKVIPAGELQVIEKVDSAFKVAATAANAAPANDKFTVFEA
AFNNAIKASTGGAYESYKFIPALEAAVKQAYAATVATAPEVKYTVF

12. On page 60, please replace all of the text on page 59 with the following text:

ETALKKAFTAMSEAQKAAPATEATATATAAVGAATGAATAATG
GYKV

Phl p 5 (SEQ ID NO: 55)

ADLGYGGPATPAAPAEAAPAGKATTEEQKLIEKINDGFKAALAAA
AGVPPADKYKTFVATFGAASNKAFAEGLSAEPKGAAESSSKAALTS
KLDAAAYKLAYKTAEGATPEAKYDAYVATLSEALRIIAGTLEVHAV
KPAAEEVKVIPAGELQVIEKVDSAFKVAATAANAAPANDKFTVFEA
AFNNAIKASTGGAYESYKFIPALEAAVKQAYAATVATAPEVKYTVF
ETALKKAITAMSEAQKAAPATEATATATAAVGAATGAATAATGG
YKV

AAAAVPRRGPRGGPGRSYIADAGYAPATPAAAGAAAGKATTEEQ
KLIEDINVGFKAADVAAAASVPAADKFKTFEAAFTSSSKAAAAKAPG
APRIDAAVSVAYKAAVGAATPEAKEDSIVASLIEALRVTAAGALEV
HAVKPVTEEPGMAKIPAGELQIIDKIDAAFKVAATAAATAPADDKE

TVFEAAFNKAIKESTGGAYDTYKCIPSI EAAVKQAYAATVAAAPQV
KYAVFEAALTKAITAMSEVQKVSQPATGAATVAAGAATTAAGAAS
GAATVAAGGYKV

Phl p 5a (SEQ ID NO: 57)

ADLGYGPATPAAPAAGYTPATPAAPAGADAAGKATTEEQKLEKIN
AGFKAALAGAGVQPADKYRTFVATFGPASNKAF AEGLSGEPKGAA
ESSSKAALTSKLDAAAYKLAYKTAEGATPEAKYDAYVATLSEALRII
AGTLEVHAVKPAAEEVKVIPAGELQVIEKVDAAFKVAATAANAAP
ANDKFTVFEAAFNDEIKASTGGAYESYKFIPALEAAVKQAYAATVA
TAPEVKYTVFETALKKAITAMSEAQKAAKPAAAATATATAAVGAA
TGAATAATGGYKV

Phl p 5 (SEQ ID NO: 58)

MAVQKYTVALLAVALVAGPAASYAADAGYAPATPAAAGAEAGK
ATTEEQKLIEDINVGFKAAVAAAASVPAADKFKTFEAAFTSSSKAA
TAKAPGLVPKLDAAYSVSYKAAVGATPEAKFDSFVASLTEALRVIA
GALEVHAVKPVTEEPGMAKIPAGELQIIDKIDAAFKVAATAAATAP
ADTVFEAAFNKAIKESTGGAYDTYKCIPSI EAAVKQAYAATVAAAP
QVKYAVFEAALTKAITAMSEVQKVSQPATGAATVAAGAATTAAG
AASGAATVAAGGYKV

13. On page 61, please replace all of the text on page 61 with the following text:

Phl p 5 (SEQ ID NO: 59)

MAVQKYTVALLAVALVAGPAASYAADAGYAPATPAAAGAEAGK
GALEVHAVKPVTEDPAWPKIPAGELQIIDKIDAAFKVAATAAATAP
ADDKFTVFEAAFNKAIKESTGGAYDTYKCIPSI EAAVKQAYAATV
AAAPQVKYAVFEAALTKAITAMSEVQKVSQPATGAATVAAGAATTAAG

ATGAASGAATVAAGGYKV

Phl p 5 (SEQ ID NO: 60)

ADAGYAPATPAAAGAEAGKATTEEQKLIEDINVGFKAAVAAAASV
PAADKFKTFEAAFTSSSKAATAKAPGLVPK LDAAYS VAYKAAVGA
TPEAKFDSFVASLTEALRVIAGALEVHAVKPVTEEPGMAKIPAGEL
QHIDKIDAAFKVAATAAATAPADDKFTVFEEAFNKAIKESTGGAYD
TYKCIPSLEAAVKQAYAATVAAAPQVKYAVFEAALTKAITAMSEV
QKVSQPATGAATVAAGAATTAAGAASGAATVAAGGYKV

Phl p 5 (SEQ ID NO: 61)

SVKRSNGSAEVHRGAVPRRGPRGGPGRSYAADAGYAPATPAAAGA
EAGKATTEEQKLIEDINVGFKAAVAAAASVPAADKFKTFEAAFTSS
SKAATAKAPGLVPK LDAAYS VAYKAAVGATPEAKFDSFVASLTEA
LRVIAGALEVHAVKPVTEEPGMAKIPAGELQHIDKIDAAFKVAATAA
ATAPADDKFTVFEEAFNKAIKESTGGAYDTYKCIPSLEAAVKQAYA
ATVAAAPQVKYAVFEAALTKAITAMSEVQKVSQPATGAATVAAGA
ATTAAGAASGAATVAAGGYKV

Phl p 5 (SEQ ID NO: 62)

MAVHQYTVALFLAVALVAGPAGSYAADLGYGPATPAAPAAGYTP
ATPAAPAGAEPAGKATTEEQKLI EKINAGFKAALAAAAGVPPADKY
RTFVATFGAASNKAFAEGLSGEPKGAAESSKAALTSK LDAAYKLA

14. On page 62, please replace all of the text on page 62 with the following text:

YKTAEGATPEAKYDAYVATVSEALRIIAGTLEVHAVKPAAEEVKVI

EGGAYESYKEIPALFAAVKQAYAAIVATAPEVKYTVFEIATKKAL
AMSEAQKAAKPAAAATATATAAVGAATGAATAATGGYKV

Phl p 5 (SEQ ID NO: 63)

ADLGYGGPATPAAPAEAPAGKATTEEQKLI EKINDGFKAAALAAA

AGVPPADKYKTFVATFGAASNKAF AEGLSAEPKGAAESSSKAALTS
KLDAAAYKLAYKTAEGATPEAKYDAYVATLSEALRIIAGTLEVHAV
KPAAEEVKVIPAGELQVIEKVDSAFKVAATAANAAPANDKFTVFEA
AFNNAIKASTGGAYESYKFIPALEAAVKQAYAATVATAPEVKYTVF
ETALKKAFTAMSEAQKAAKPATEATATATAAVGAATGAATAATG
GYKV

Phl p5b (SEQ ID NO: 64)

AAA AVPRRGPRGGPGRSYTADAGYAPATPAAAGAAAGKATTEEQ
KLIEDINVGFKA AVAAAA SVPAADKFKTFEAAFTSSSKAAAAKAPG
LVPKLDAAYSVAYKAAVGATPEAKFDSFVASLTEALRVIAGALEV
HAVKPVTEEPGMAKIPAGELQIIDKIDAAFKVAATAAATAPADDF
TVFEAAFNKAIKESTGGAYDTYKCIPSLEAAVKQAYAATVAAAPQV
KYAVFEAALT KAITAMSEVQKVSQPATGAATVAAGAATTAAGAAS
GAATVAAGGYKV

Phl p5a (SEQ ID NO: 65)

ADLGYGPATPAAPAAGYTPATPAAPAGADAAGKATTEEQKLIEKIN
AGFKAALAGAGVQPADKYRTFVATFGPASNKAF AEGLSGEPKGAA
ESSSKAALTSKLDAAAYKLAYKTAEGATPEAKYDAYVATLSEALRII
AGTLEVHAVKPAAEEVKVIPAGELQVIEKVDAAFKVAATAANAAP
ANDKFTVFEAAFNDEIKASTGGAYESYKFIPALEAAVKQAYAATVA
~~TAPEVKYTVFETALKKAFTAMSEAQKAAKPAAATATATAAVGAA~~

15. On page 63, please replace all of the text on page 63 with the following text:

Phl p5 (SEQ ID NO: 66)

AVPRRGPRGGPGRSYAADAGYAPATPAAAGAAEAGKATTEEQKLIE
DINVGFKA AVAAAA SVPAADKFKTFEAAFTSSSKAAAAKAPGAPL
LDAAYSVAYKAAVGATPEAKFDSFVASLTEALRVIAGALEVHAVK

PVTEEPGMAKIPAGELQIIDKIDAAFKVAATAAATAPADDKFTVFE
AAFNKAIKESTGGAYDTYKCIPSLEAAVKQAYAATVAAAPQVKYA
VFEAALTKAITAMSEVQKVSQPATGAATVAAGAATTATGAASGAA
TVAAGGYKV

Phl p 5b (SEQ ID NO: 67)

MAVPRRGPRGGPGRSYTADAGYAPATPAAAGAAAGKATTEEQKLI
EDINVGFKAABAARQRPAADKFKTFEAASPRHPRPLRQGAGLVPKL
DAAYSVAYKAAVGATPEAKFDSFVASLTEALRVIAGALEVHAVKP
VTEEPGMAKIPAGELQIIDKIDAAFKVAATAAATAPADDKFTVFEA
AFNKAIKESTGGAYDTYKCIPSLEAAVKQAYAATVAAAAEVKYAV
FEAALTKAITAMSEVQKVSQPATGAATVAAGAATTAAGAASGAAT
VAAGGYKV

Phl p 5 (SEQ ID NO: 68)

MAVHQYTVALFLAVALVAGPAASYAADLGYGPATPAAPAAGYTP
ATPAAPAEAAPAGKATTEEQKLIEKINAGFKAALAAAAGVQPADK
YRTFVATFGAASNKAFAEGLSGEPKGAAESSKAALTSKLDAAYKL
AYKTAEGATPEAKYDAYVATLSEALRIIAGTLEVHAVKPAAEEVKV
IPAGELQVIEKVDAAFKVAATAANAAPANDKFTVFEAAFNDAIKAS
TGGAYESYKFIPALEAAVKQAYAATVATAPEVKYTVFETALKKAIT
AMSEAQKAAKPAAAATATATAAVGAATGAATAATGGYKV

Phl p 5 (SEQ ID NO: 69)

16. On page 64, please replace all of the text on page 64 with the following text:

SNKAFAEGLSGEPKGAAESSKAALTSKLDAAYKLAYKTAEGATPE
AKYDAYVATLSEALRIIAGTLEVHAVKPAAEEVKVIPAAELQVIEKV
DAAFKVAATAANAAPANDKFTVFEAAFNDAIKASTGGAYESYKFIP
ALEAAVKQAYAATVATAPEVKYTVFETALKKAITAMSEAQKAAKP

PPLPPPPQPPPLAATGAATAATGGYKV

Phl p 5 (SEQ ID NO: 70)

MAVHQYTVALFLAVALVAGPAASYAADLGYGPATPAAPAAGYTP
ATPAAPAEAAPAGKATTEEQKLIKINAGFKAALAAAAGVQPADK
YRTFVATFGAASNKAFAEGLSGEPKGAAESSKAALTSKLDAAAYKL
AYKTAEGATPEAKYDAYVATLSEALRIIAGTLEVHAVKPAAEEVKV
IPAGELQVIEKVDAAFKVAATAANAAPANDKFTVFEEAFNDAIKAS
TGGAYESYKFIPALEAAVKQAYAATVATAPEVKYTVFETALKKAIT
AMSEAQKAAKPAAAATATATAAVGAATGAATAATGGYKV

Phl p 5b (SEQ ID NO: 71)

MAVPRRGPRGGPGRSYTADAGYAPATPAAAGAAAGKATTEEQKLI
EDINVGFKAAVAARQRPAADKFKTFEAAASPRHPRPLRQGAGLVPKL
DAAYSVAYKAAVGATPEAKFDSFVASLTEALRVIAGALEVHAVKP
VTEEPGMAKIPAGELQIIDKIDAAFKVAATAAATAPADDKFTVFEEA
AFNKAIKESTGGAYDTYKCIPSLEAAVKQAYAATVAAAAEVKYAV
FEAALTKAITAMSEVQKVSQPATGAATVAAGAATTAAGAASGAAT
VAAGGYKV

Phl p 5a (SEQ ID NO: 72)

ADLGYGPATPAAPAAGYTPATPAAPAGADAAGKATTEEQKLIKIN
AGFKAALAGAGVQPADKYRTFVATFGPASNKAFAGEGLSGEPKGAA
ESSKAALTSKLDAAAYKLAYKTAEGATPEAKYDAYVATLSEALRII
AGTLEVHAVKPAAEEVKVIPAGELQVIEKVDAAFKVAATAANAAP

ANDKFTVFEEAFNDEIKASTGGAYESYKFIPALEAAVKQAYAATVA
ATAPEVKYTVFETALKKAITAMSEAQKAAKPPPLPPPPQPPPLAATGA
ATAATGGYKV

Phl p 5 (SEQ ID NO: 73)

MAVHQYTVALFLAVALVAGPAASYAADLGYGPATPAAPAAGYTP
ATPAAPAEAAPAGKATTEEQKLIKINAGFKAALAAAAGVQPADK
YRTFVATFGAASNKAFAEGLSGEPKGAAESSKAALTSKILDAAYKL
AYKTAEGATPEAKYDAYVATLSEALRIIAGTLEVHAVKPAAEEVKV
IPAGELQVIEKVDAAFKVAATAANAAPANDKFTVFEEAFNDAIKAS
TGGAYESYKFIPALEAAVKQAYAATVATAPEVKYTVFETALKKAIT
AMSEAQKAAKPAAAATATATAAVGAATGAATAATGGYKV

Phil p 6 (SEQ ID NO: 74)

MAAHKFMVAMFLAVAVVLGLATSPTAEGGKATTEEQKLIEDVNA
SFRAAMATTANVPPADKYKTFEAAFTVSSKRNLADAVSKAPQLVP
KLDEVYNAAYNAADHAAPEDKYEAFVLHFSEALRIIAGTPEVHAV
KPGA

Phil p 6 (SEQ ID NO: 75)

SKAPQLVPKLDEVYNAAYNAADHAAPEDKYEAFVLHFSEALHIIAG
TPEVHAVKPGA

Phil p 6 (SEQ ID NO: 76)

ADKYKTFEAAFTVSSKRNLADAVSKAPQLVPKLDEVYNAAYNAAD
HAAPEDKYEAFVLHFSEALHIIAGTPEVHAVKPGA

18. On page 66, please replace all of the text on page 66 with the following text:

Phil p 6 (SEQ ID NO: 77)

TEEQKLIEDVNASFRAAMATTANVPPADKYKTLEAAFTVSSKRNL
ADAVSKAPQLVPKLDEVYNAAYNAADHAAPEDKYEAFVLHFSEALR

Phil p 6 (SEQ ID NO: 78)

MAAHKFMVAMFLAVAVVLGLATSPTAEGGKATTEEQKLIEDINAS
SFRAAMATTANVPPADKYKTLEAAFTVSSKRNLADAVSKAPQLVP
KLDEVYNAAYNAADHAAPEDKYEAFVLHFSEALHIIAGTPEVHAVK

PGA

Phl p 6 (SEQ ID NO: 79)

MVAMFLAVAVVLGLATSPTAEGGKATTEEQKLIEDVNASFRAAMA
TTANVPPADKYKTFEAAFTVSSKRNLADAVSKAPQLVPKLDEVYN
AAYNAADHHAAPEDKYEAFVLHFSEALRIIAGTPEVHAVKPGA

Phl p 7 (SEQ ID NO: 80)

MADDMERIFKRFDTNNGDGKISLSELTDAIRTLGSTSADEVQRMMA
EIDTDGDGFIDFNEFISFCNANPGLMKDVAKVF

Phl p 11 (SEQ ID NO: 81)

MSWQTYVDEHLMCEIEGHHLASAAILGHDGTVWAQSADFPQFKPE
EITGIMKDFDEPGHLAPTGMFVAGAKYMVIQGEPRVIRGKKGAG
GITIKKTGQALVVGIIYDEPMTPGQCNMVVERLGDYLV EQGM

Additional Phleum sequences (NCBI entrez accession):

458878; 548863; 2529314; 2529308; 2415702; 2415700; 2415698;
542168; 542167; 626037; 542169; 541814; 542171; 253337; 253336;
453976; 439960

19. On page 67, please replace all of the text on page 67 with the following text:

Wasp (and related)

Vespula sequences:

465054 ALLERGEN VES V 5 (SEQ ID NO: 82)

MEISGLVYLIIIVTIIDLPGKANNYCKIKCLKGGVHTACKYGS LKPN
CGNKVVVSYGLTKQEKQDILKEHNDFRQKIARGLETRGNPGPQPPA

ATLGSTAAKYDDPVKIAKAIWEDFAKDYNPKKKESGNDDEIKTGHY

TQM V WANTKEVGC GSIKYIQEKWHKH YLCNYGPSGNEMNEELY

QTK

1709545 ALLERGEN VES M 1 (SEQ ID NO: 83)

GPKCPFNSDTVSIHETRENRNRDLYTLQTLQNHPEFKKKTITRPVVF
ITHGFTSSASEKNFINLAKALVDKDNYMVISIDWQTA ACTNEYPGL
KYAYYPTAASNTRLVGQYIATITQKLVKDYKISMANIRLIGHSLGAH
VSGFAGKRVQELKLGKYSEIHGLDPARPSFDSNHC SERLCETDAEYV
QIIHTSNYLGTEKILGTVD FYMNNGKNNPGCGRFFSEVCSHTRAVIY
MAECIKHECC LIGIPRSKSSQPISRCTKQECVCVGLNAKKYPSRGSFY
VPVESTAPFCNNKGKII

1352699 ALLERGEN VES V 1 (SEQ ID NO: 84)

MEENMNLKYLLLFVYFVQVLNCCYGHGDPLSYELDRGPKCPFNSD
TVSIHETRENRNRDLYTLQTLQNHPEFKKKTITRPVVFITHGFTSSAS
ETNFINLAKALVDKDNYMVISIDWQTA ACTNEAAGLKYLYYPTAA
RNTRLVGQYIATITQKLVKHYKISMANIRLIGHSLGAHASGFAGKKV
QELKLGKYSEIHGLDPARPSFDSNHC SERLCETDAEYVQIIHTSNYLG
TEKTLGTVD FYMNNGKNQPGCGRFFSEVCSHSRAVIYMAECIKHE
CCLIGIPKSKSSQPISSCTKQECVCVGLNAKKYPSRGSFYVPVESTAP
FCNNKGKII

20. On page 68, please replace all of the text on page 68 with the following text:

1346323 ALLERGEN VES V 2 (SEQ ID NO: 85)

SERPKRVENIYWNVPTFMCHQYDLYFDEVTNENIKRNSKDDFQGD
KIAIFYDPGEFPALLSLKDGKYKKRNNGGVPQEGNITIH LQKFIE NL D
KIYPNRNFSGIGVIDFERWRPIFRQNWGNMKIHKNF SIDLVRNEHPT
WNKKMIELEASKRFEKYARFFMEETLKLAKKTRKQADWGYYGY P

LEPDQRIGLVQGRVKEAVRISNNIKHSPKATSYWWYAYQDEINTF
LTETDVKKTFQEIVNGGDGHIWGS SDVNSLSKCKRLQDYLLTVLG
PLAINTEAVN

549194 ALLERGEN VES VI (SEQ ID NO: 86)

MDSPCLVALLVFSFVIGSCFSDNPIDSCWRGDSNWAQNRMKLADC
AVGFGSSTMGGKGGDLYTVTNSDDDPVNPAPGTLRYGATRDRPL
WIFSGNMNIKLKMPMYIAGYKTFDGRGAQVYIGNGGPCVFIKRVS
NVIHGLYLYGCSTSVLGNVLINESFGVEPVHPQDGDALTLRTATNI
WIDHNSFSNSSDGLVDVTLTSTGVTISNNLFFNHHKVMSLGHDDAY
SDDKSMKVTVAFNQFGPNCGQRMPRARYGLVHVANNNYDPWTIY
AIGGSSNPITLSEGNSTAPNESYKKQVTIRIGCKTSSSCSNWVWQST
QDVFYNGAYFVSSGKYEGGNIYTKKEAFNVENGNAIPHILTQNAGV

LTCSLSKRC

Dog

Canis sequences:

Can f 1 (SEQ ID NO: 107)

MKTLLLTIGFSLIAILQAQDTPALGKDTVAVSGKWYLKAMTADQE
VPEKPDSVTPMILKAQKGGNLEAKITMLTNGQCQNITVVLHKTSEP
GKYTAYEGQRRVFIQSPVRDHYILYCEGELHGRQIRMAKLLGRDP
EQSQEALEDFREFSRAKGLNQEILELAQSETCSPGGQ

28. On page 76, please replace all of the text on page 76 with the following text:

Serum albumin fragment (SEQ ID NO: 108)

EAYKSEIAHRYNDLGEEHFRGLVL

Serum albumin fragment (SEQ ID NO: 109)

LSSAKERFKCASLQKFGDRAFKAWSVARLSQRFPKADFAEISKVVT

PVTEKSQCTAFVFRDEIPGDIPSLAADFAEDKFACKNYQFAKDAE
LGTFLEYEYSRRHPEYSVSLLLRLAKEYEATLEKCCATDDPPTCYAK
VDETEKPIVDIPQNIARKINCEETETKIGLYGQNAITARYTKKAPQ
ASTPTLVVEVSRKLGKVGTKCKKPFSEFRMSCADDETS

5KVNICKIKCLKGGVHTACKYGTSTKPNCCKMVVKAYGLTEAEK
QEILKVIHINFRQKVAKGLETRGNPGPQPPAKNMNNLVWNDELANI
AQVWASQC'NYGHDTC'KDTEKYPVGQNI'AKRSTTAALFDSPGKLVK
MWENEVKDFNPNI'EWSKNNL'KKTGHYTQMVWAKTKEIG'CGSVKY
VKDEWYTHYLC'NYGPSGNFRNEKLYEKK

Additional vespula sequences (NCBI entrez accession):

549193; 549192; 549191; 549190; 549189; 117414; 126761; 69576;
625255; 627189; 627188; 627187; 482382; 112561; 627186; 627185;
1923233; 897645; 897647; 745570; 225764; 162551.

Tree allergen sequences (mainly birch) sequences:

114922 Bet v 1 (SEQ ID NO: 87)

MGVFNYETETTSVIPAAARLFKAFILDGDNLFKVPQAISSVENIEG
NGGPGTIKKISFPEGFPFKYVKDRVDEVDHTNFKYNYSVIEGGPIGD
TLEKISNEIKIVATPDGGSILKISNKYHTKGDHEVKAEQVKASKEMG
ETLLRAVESYLLAHSDAYN

21. On page 69, please replace all of the text on page 69 with the following text:

130975 Bet v 2 (SEQ ID NO: 88)

MSWQTYVDEHLMCDIDGQASNSLASAIVGHDGSVWAQSSSFPQFK
PQEITGIMKDFEEPGHLAPTGLHLGGIKYMVIQGEAGAVIRGKKKSG
GITIKKTGQALVFGIYEEPVTPGQC'NMVVERLGDY'LDQGL

1168696 Bet v 3 (SEQ ID NO: 89)

MPCSTEAMEKAGHGHASTPRKRSLSNSSFRLRSESLNTRLRLRRIFDL

DEISLHQSLNDSYFAYGGEDFDDNEFDMRKSHSQFEADSEGGGEKA
FEDEDGDGYISARELQMVLGKLGFESEGEIDRVEKMIVSVDSNRDGR
VDEETTKDMRSLVVRSS

809536 Bet v 4 (SEQ ID NO: 90)

MADDHPQDKAERERIFKRFDANGDGKISAAELGEALKTLGSITPDE

VKHMMAEIDTDGDGFISFQEFTDFGRANRGLLKDVAKIF

543675 Que a I (SEQ ID NO: 91)- Quercus alba=oak trees (fragment)

GVFTXESQETSVIAPANLFLKALFL

543509 Car b I (SEQ ID NO: 92)- Carpinus betulus=hornbeam trees (fragment)

GVFNIEAETPSVIPAAARLFKSYVLDGDKLIPKVAPQAIXK

543491 Aln g I (SEQ ID NO: 93)- Alnus glutinosa=alder trees (fragment)

GVFNIEAETPSVIPAAARLFKAFILDGDKLLPKVAPEAVSSVENI

1204056 Rubisco (SEQ ID NO: 94)

VQCMQVWPPLGLKKFETLSYLPPLSSEQLAKEVDYLLRKNLIPCLE

FELEHGFVYREHNRSPGYDGRYWTMWKLPFMFGCNDSSQVLKEL

EECKKAYPSAFIRIIGFDDK

22. On page 70, please replace all of the text on page 70 with the following text:

Additional tree allergen sequences (NCBI entrez accession number):

131919; 128193; 585564; 1942360; 2554672; 2392209; 2414158;

1321728; 1321726; 1321724; 1321722; 1321720; 1321718; 1321716;

1321714; 1321712; 3015520; 2935416; 464576; 1705843; 1168701;

1168710; 1168709; 1168708; 1168707; 1168706; 1168705; 1168704;

1168703; 1168702; 1842188; 2564228; 2564226; 2564224; 2564222;

2564220; 2051993; 1813891; 1536889; 534910; 534900; 534898;

1340000; 1339998; 2149808; 66207; 2129477; 1076249; 1076247;

629480; 481805; 81443; 1361968; 1361967; 1361966; 1361965;

629483; 629482; 629481; 841804; 320845; 81444; 841814; 629484;

474911; 452742; 1834387; 298737; 298736; 1584322; 1584321; 584320;

1542851; 1542850; 1542849; 1542848; 1542847; 1542846; 1542845;

1542859; 1542857; 1483232; 1483230; 1483228; 558561; 551640;

488605; 452746; 452744; 452740; 452738; 452736; 452734; 452732;
452730; 452728; 450885; 17938; 17927; 17925; 17921; 297538; 510951;
289331; 289329; 166953 .

Peanut

Peanut sequences

1168391 Ara h 1 (SEQ ID NO: 95)

MRGRVSPLMLLLGILVLASVSATHAKSSPYQKKTENPCAQRCLQSC
QQEPDDLKQKACESRCTKLEYDPRCVYDPRGHTGTTNQRSPPGER
TRGRQPGDYDDRRQPRREEGGRWGPAGPREREREEDWRQPRED
WRRPSHQQPRKIRPEGREGEQEWGTPGSHVREETSRRNNPFYFPSRR
FSTRYGNQNGRIRVLQRFDQRSRQFQNLQNHRIVQIEAKPNTLVLP
KHADADNILVIQQGQATVTVANGNNRKSFNLDEGHALRIPSGFISYI
LNRHDNQNLRVAKISMPVNTPGQFEDFFPASSRDQSSYLQGFSRNT

23. On page 71, please replace all of the text on page 71 with the following text:

LEAAFNAEFNEIRRVLLEENAGGEQEERGQRRWSTRSSENNEGVIV
KVSKEHVEELTKHAKSVSKKGSEEEGDITNPINLREGEPDLSNNFGK
LFEVKPDKKNPQLQDLDMMLTCVEIKEGALMLPHFNSKAMVIVVV
NKGTTGNLELVAVRKEQQQRGRREEEDEDDEEEEGSNREVRRTAR
LKEGDVFIMPAAHPVAINASSELHLLGFGINAENNHRIFLAGDKDN
VIDQIEKQAKDLAFPGSGEQVEKLIKQKESHFVSARPQSQSQSPSSP
EKESPEKEDQEEENQGGKGPLLSILKAFN

Ragweed

113478 Amb a 1 (SEQ ID NO: 96)

MGIKHCCYILYFTLALVTLLQPVRSAEDLQQILPSANETRSUTTCGT
VNHDGCVREGKADWALNRKALADCAQQEAKGTHGKDDENLVLS
FLDDDVANPKEGHLREGAAQNRPLWHEARDMIVIRIDREHAINNDK

TIDGRGAKVEIINAGFAIYNVKNIIHNIMHDIVVNPGLIKSHDGPP
VPRKGS DGD AIGISGGSQIWIDHCSLSKAVDGLIDAKHGSTHFTVSN
CLFTQHQYLLLFWD FDERGMLCTVAFNKFTDNVDQRMPNLRHGF
VQVVNNNYERWGSYALGGSAGPTILSQGNRFLASDIKKEVVGRYG
ESAMSESINWNWRSYMDVFENG AIFVPSGVDPVLTPEQNAGMIPAE
PGEAVLRLTSSAGVLSCQPGAPC

113479 Amb a 2 (SEQ ID NO: 97)

MGIKHCCYILYFTLALVTLVQAGRLGEEVDILPSPNDTRRSLQGCE
AHNIIDKCWRCKPDWAENRQALGNCAQGF GKATHGGKWGDIYM
VTSDQDDDVVNPKEGTLRFGATQDRPLWIIFQRDMIIYLQQEMVVT
SDKTIDGRGAKVELVYGGITLMNVKNVHHNIDIHDVRVLPGGRIKS
NGGPAIPRHQSDGDAIHVTGSSDIWIDHCTLSKSF DGLVDVNWGST
GVTISNCKFTTHHEKAVLLGASDTHFQDLKMHVTLAYNIFTNTVHE

24. On page 72, please replace all of the text on page 72 with the following text:

RMPCRFRGFFQIVNNFYDRWDKYAIGGSSNPTILSQGNKFVAPDFIY
KKNVCLRTGAQEPEWMTWNWRTQNDVLENGAIFVASGSDPVLT A
EQNAGMMQAEPGDMVPQLTMNAGVLTCS PGAPC

113477 Amb a 1.3 (SEQ ID NO: 98)

MGIKQCCYILYFTLALVALLQPVRSAEGVGEILPSVNETRSLQACEA
LNIIDKCWRGKADWENNRQALADCAQGF AKGTYGGKWGDVYTV
TSNLDDDVANPKEGTLRFAAAQNRPLWIIFKNDMVINLNQELVVN
SDKTIDGRGVKVEIINGGLTLMNVKNIIHNINIHDVKVLPGGMIKSN

TISNCKFTQQSKAHTGADDTHTVQDKGMATAVAFNMFTDNVDQR
MPCRFRGFFQVVNNNYDRWGTYAIGGSSAPTILCQGNRFLAPDDQI
QGNVETARTGIGAAISMAWNRSDKDELENGAIFVASGSDPVLTPE
QSAGMIPAE PGEAAIKETSSAGVESCHPGAPC

113476 Amb a 1.2 (SEQ ID NO: 99)

CG
Ch
MGIKHCCYILYFTLALVTLLQPVRSAEDVEEFLPSANETRRSLKACE
AHNIIDKCWRCKADWANNRQALADCAQGFAKGTGGKHGDVYT
VTSDKDDDVANPKEGTLRFAAAQNRPLWIIFKRNMMVIHLNQELVV
NSDKTIDGRGVKVNIVNAGLTLMNVKNIIHININIHDIKVCPPGGMKS
NDGPPILRQQSDGDAINVAGSSQIWIDHCSLSKASDGLLDITLGSSHV
TVSNCKFTQHGFVLLLGADDTHYQDKGMLATVAFNMFTDHVDQR
MPRCRFGFFQVVNNNYDRWGTYAIGGSSAPTILSQGNRFFAPDDIHK
KNVLARTGTGNAESMSWNWRTDRDLENGAIFLPSGSDPVLTPAQ
KAGMIPAEPGEAVLRLTSSAGVLSCHQAPC

113475 Amb a 1.1 (SEQ ID NO: 100)

MGIKHCCYILYFTLALVTLLQPVRSAEDLQEILPVNETRRLTTSGAY
NIIDGCWRGKADWAENRKALADCAQGFKGKTVGGKDGDYTVTS
ELDDDVANPKEGTLRFGAAQNRPLWIIFERDMVIRLDKEMVVNSD

25. On page 73, please replace all of the text on page 73 with the following text:

CG
KTIDGRGAKVEIINAGFTLNGVKNVIIHNINMHDVKVNPGLIKSND
GPAAPRAGSDGDAISISGSSQIWIDHCSLSKSVDGLVDAKLGTTTLT
VSNSLFTQHGFVLLFGAGDENIEDRGMLATVAFNTFTDNVDQRMF
RCRHGFFQVVNNNYDKWGSYAIGGSASPTILSQGNRFCAPDERSKK
NVLGRHGEAAAESMKWNWRTNKDVLNGAIFVASGVDPVLTPAQ
SAGMIPAEPGESALSLTSSAGVLSCQPGAPC

Cedar sequences

MIDSPCTVATLVESEVIGSCFSDNPIIDSCWRGDSNW AQNRMIKTADG
AVGFGSSTMGGKGGDLTYTVTNSDDDPVNPPGTLRYGATRDRPLWI
DSCGNMNIKLEMPMYTAGYKTHDGRCAQVYIENGGPCVFIKRSNT
IHGLYTYGCSISVIGNVTINESFGVEPVHPQDGDALHRLATNIWI

DHNSFSNSSDGLVDVTLTSTGVTISNNLFFNHHKVM SLGHDDAYSD
DKSMKVTVAFNQFGPNC GQRMPRARYGLVHVANN NYDPWTIYAI
GGSSNP TILSEGN SFTAPNESYKKQVTIRIGCKTSSSCSNWVWQSTQ
DV FYNGAYFVSSGKYEGGNIYTKKEAFNVENG NATPHLTQNAGVL
TC SL SKRC

493632 Cry j 1A precursor (SEQ ID NO: 102)

MDSPCLVALLVLSFVIGSCFSDNPIDSCWRGDSNWAQNRMKLADC
AVGFGSSTMGGKGGDLYTVTNSDDDPVNPAPGTLRYGATRDRPL
WIIFSGNMNIKLKMPMYIAGYKTFDGRGAQVYIGNGGPCVFIKRVS
NVIIHGLHLYGCSTSVLGNVLINESFGVEPVHPQDGDALTLRTATNI
WIDHNSFSNSSDGLVDVTLSSSTGVTISNNLFFNHHKVMLLGHDDAY
SDDKSMKVTVAFNQFGPNC GQRMPRARYGLVHVANN NYDPWTIY
AIGGSSNP TILSEGN SFTAPNESYKKQVTIRIGCKTSSSCSNWVWQST
QDV FYNGAYFVSSGKYEGGNIYTKKEAFNVENG NATPQLTKNAGV
LTCSLSKRC

26. On page 74, please replace all of the text on page 74 with the following text:

1076242 Cry j II precursor - Japanese cedar (SEQ ID NO: 103)

MAMKLIAPMAFLAMQLIIMAAAEDQSAQIMLDSVVEKYLR SNRSL
RKVEHSRHDAINIENVEKYGAVGDGKH DCTEAFSTAWQAACKNPS
AMLLVPGSKKFV VNNLFFNGPCQPHFTFKVDGIIAAYQNPASWKN
NRIWLQFAKLTGFTLMGKGVIDGQGKQWWAGQCKWVNGREICND
RDRPTAIKFDEFSTGLIIQGLKLMNSPEFHLVEGNCEGVKIIIGISITAPR

GHIGISIGSLGRENSRAFYSYVHVNGAKFIDTQNGIRIKTWQGGSCM
ASHIIYENVEMINSENPI LINQFYCT SASACQNQRS AVQIQDVTYKNI
RGTSATVAALQIKCSDSMPCKDIKESDISTKETS GRTASCUNDNANG
YESGHIVIPACKNISPSAKRKE SKSHKHPKIVMVENMRAYDKGNRI

RILIGSRPPNCTNKCHGCS PCKAKLVIVHRIMPQEYYPQRWICSCHG
KIYHP

1076241 Cry j II protein - Japanese cedar (SEQ ID NO: 104)

MAMKFIAPMAFVAMQLIIMAAAEDQSAQIMLSDIEQYLRSNRSR
KVEHSRHDAINIFENVEKYGAVGDGKHDCTEAFSTAWQAACKKPSA
MLLVPGNKKFVVNNLFFNGPCQPHFTFKVDGIIAAYQNPASWKNN
RIWLQFAKLTGFTLMGKGVIDGQKQWWAGQCKWVNGREICNDR
DRPTAIKFDEFSTGLIIQGLKLMNSPEFHLVFGNCEGVKIIIGISITAPRD
SPNTDGIDIFASKNFHLQKNTIGTGDDCVAIGTGSSNIVIEDLICGPG
HGISIGSLGRENSRAEVSYVHVNGAKFIDTQNGRLRIKTWQGGSGMA
SHIYENVEMINSENPIILINQFYCTASACQNQRS AVQIQDVTYKNIR
GTSATAAAIQLKCSDSMPCKDIKLSDISLKLTSKGKIASCLNDNANGY
FSGHVIPACKNLSPSAKRKESKSHKHPKTMVKNMGAYDKGNRTRI
LLGSRPPNCTNKCHGCS PCKAKLVIVHRIMPQEYYPQRWMC SRHG
KIYHP

541803 Cry j I precursor - Japanese cedar (SEQ ID NO: 105)

27. On page 75, please replace all of the text on page 75 with the following text:

MDSPCLVALLVLSFVIGSCFSDNPIDSCWRGDSNWAQNRMKLADC
AVGFGSSTMGGKGGDLYTVTNSDDDPVNPPGT LRYGATRDRPLWI
IFSGNMNIKLKMPMYIAGYKTFDGRGAQVYIGNGGPCVFIKRVS NV
IHHGLHLYGCSTSVLGNVLINESFGVEPVHPQDGDALTLRTATNIWI
DHNSFSNSSDGLVDVTLSSSTGVTISNNLFFNHHKVMLLGHDDAYS D

GGSSNPHESEGNSEIAPNESYKKQVIRIGCKTSSSCSNWWQSTIQ
DVFYNGAYFVSSGKYEGGNIYTKKEAFNVENG NATPQLTKNAGVL
LCSTSKRC

541802 Cry j I precursor- Japanese cedar (SEQ ID NO: 106)

Can f 2 (SEQ ID NO: 110)

MQLLLLTVGLALICGLAQEGNHEEPQGGLEELSGRWHVALASN
KSDLIKPWGHRVFIHMSAKDGNLHGDILIPQDGQCEKVS LTAFKT
ATSNKFDLEYWGHNDLYLAEVDPKSYLILYMINQYND DTS LVAHL
MVRDL SRQQDFLPAFESVCEDIGLHKDQIVVLSDDDR CQGSRD

Additional dog allergen protein (NCBI entrez accession):

1731859

Horse

Equus sequences:

1575778 Equ c1 (SEQ ID NO: 111)

CK
2
1575778
MKLLLLCLGLILVCAQQEENS DVAIRNFDISKISGEWYSIFLASDVK
EKIEENGSMRVFVDVIRALDNSSLYAEYQTKVNGECTEF?MVFDKT
EEDGVYSLNYDGYNVFRISEFENDEHIILYLVNFDKDRPFQLFEFYA
REPDVSP~~E~~IKEEFVKIVQKRGIVKENIIDLT~~K~~IDRC~~F~~QLRGNGVAQA

29. On page 77, please replace all of the text on page 77 with the following text:

3121755 Equ c 2 (SEQ ID NO: 112)

SQXPQSETDYSQLSGEWNTIYGAASNIX

Euroglyphus (mite)

Euroglyphus sequences:

Eur m 1 (variant) (SEQ ID NO: 113)

TYACSINSVSLPSELDLRSRLRTVTPIRMQGGCGSCWAFSGVASTESA
YLAYRNMSLDLAEQELVDCASQNGCHGDTIPRGIEYIQQNGVVQE

VAVHGHKDENAERHYDGRTHMQHDNGYQPNYHAAVNIYGYGNTIQG
VDYWIVRNSWDTTWGDNGYGYFAANINL

Eur m 2 (variant) (SEQ ID NO: 114)

TYACSINSVSLPSELDLRSRLRTVTPIRMQGGCGSCWAFSGVASTESA

YLAYRNMSLDLAEQELVDCASQNGCHGDTIPRGIEYIQQNGVVQE
HYYPYVAREQSCHRPNAQRYGLKNYCQISPPDSNKIRQALTQTHTA
VAVIIGIKDLNAFRHYDGRTIMQHDNGYQPNYHAVNIVGYGNTQG
VDYWIVRNSWDTTWGDNGYGYFAANINL

Eur m 1 (variant) (SEQ ID NO: 115)

ETNACSINGNAPAEIDLRQMRTVTPIRMQGGCGSCWAFSGVAATES
AYLAYRNQSLDLAEQELVDCASQHGCHGDTIPRGIEYIQHNGVVQE
SYRYRYVAREQSCRRPNAQRFGISNYCQIYPPNANKIREALAQTHSAI
AVIIGIKDLDAFRHYDGRTHIQRDNGYQPNYHAVNIVGYSNAQGVD
YWIVRNSWDTNWGDNGYGYFAANIDL

Eur m 1 (variant) (SEQ ID NO: 116)

ETSACRINSYNVPSELRLSLRTVTPIRMQGGCGSCWAFSGVAATES

30. On page 78, please replace all of the text on page 78 with the following text:

AYLAYRNTSLDLSEQELVDCASQHGCHGDTIPRGIEYIQQNGVVEE
RSYPYVAREQQCRRPNSQHYGISNYCQIYPPDVKQIREALTQTHTAI
AVIIGIKDLRAFQHYDGRTHIQHDNGYQPNYHAVNIVGYGSTQGVD
YWIVRNSWDTTWGD SGYGYFQAGNNL

Poa (grass) sequences

113562 POLLEN ALLERGEN POA P 9 (SEQ ID NO: 117)

MAVQKYTVLFLVALVVGPAASYAADLSYGAPATPAAPAAGYTP
AAPAGAAPKATTDEQKMEKINVGFKA AVAAAGGVPAANKYKTFV
ATFGAASNKAFAEALSTEPKGA AVDSSKAALTSKLDAAYKLAYKS

ETQVIDKVDAATKVAAALANAAPANDKFTVFAAFNDAIKASTGG
AYQSYKFIPALEAAVKQSYAATVATAPAVKYTVFETALKKAITAMS
QAQKAAKPAAAVTGTATAAVGAAVGTAAVAAAGGYKA

113561 POA P 9 (SEQ ID NO: 118)

MAVHQYTVLFLAVALVAGPAASYAADVGYGAPATLATPATPAA
PAAGYTPAAPAGAAPKATTDEQKLIKINAGFKA AVAAAAGVPAV
DKYKTFVATFGTASNKAFAEALSTEPKGAAAASSNAVLT SKLDAA
YKLAYKSAEGATPEAKYDAYVATLSEALRIIAGTLEVHAVKPAGEE
VKAIPAGELQVIDKVDAAFKVAATAANAAPANDKFTVFEAAFNDA
IKASTGGAYQSYKFIPALEAAVKQSYAATVATAPAVKYTVFETALK
KAITAMSQAQKAAKPAAAVTATATGAVGAATGAVGAATGAATAA
AGGYKTGAATPTAGGYKV

113560 POA P 9 (SEQ ID NO: 119)

MDKANGAYKTALKAA SAVAPAEKFPVFQATFDKNLKEGLSGPDA
VGFAKKLDAFIQTSYLS TKAAEPKEKFDLFVLSLTEVLRFMAGAVK
APPASKFPAKPAPKVAAYTPAAPAGAAPKATTDEQKLIKINVGFK

31. On page 79, please replace all of the text on page 79 with the following text:

AAVAAAAGVPAASKYKTFVATFGAASNKAFAEALSTEPKGAAVAS
SKAVLT SKLDAAYKLAYKSAEGATPEAKYDAYVATLSEALRIIAGT
LEVHGVKPAAEEVKAIPAGELQVIDKVDAAFKVAATAANAAPAND
KFTVFEAAFNDAIKASTGGAYQSYKFIPALEAAVKQSYAATVATAP
AVKYTVFETALKKAITAMSQAQKAAKPAAAVTGTATSAVGAATGA
ATAAAGGYKV

Cockroach sequences

2833325 Cr p1 (SEQ ID NO: 120)

MKTALVFAAVVAFVAARFPDHKDYKQLADKQFLAKQRDVLRLFH

RGEPSVNYEKHREQAIMLYDLYEANDYDTTYKTACWARDRVN
EGMFMYSESLAVFHRDDMQGVMLPPPYEVYPYLFVDHDDVIHMAQ
KYWMKNAGSGETHSHVPAVNTTERTQDHEEAYETSDVNTNANENY
YRYYYPSWYNTHYGHNIDRRGEQFYTYKQIYARYFLERLSNDLP

DVYPFYYSKPVKSAYNPRLRYHNGEEMPVRPSNMYVTNFDLYYIA
DIKNYEKRVEDAIDFGYAFDEHMKPHSLYHDVHGMEYLADMIEG
NMDSPNFYFYGSIYHMYHSMIGHIVDPYHKMGLAPSLHEHPETVLR
DPVIFYQLWKRVDHLFQKYKNRLPRYTHDELAFEGVKVENVDVGK
LYTYFEQYDMSLDMAVYVNNVDQISNVDVQLAVRLNHIKPFTYNIE
VSSDKAQDVYVAVFLGPKYDYLGREYDLNDRRHYPVEMDRFPYH
VGAGKTVIERNSHDSNIIAPERDSYRTFYKKVQEAYEGKSQYYVDK
GHNYCGYPENLLIPKGGKGGQAYIFYVIVIPYVKQDEHDFEPYNY
KAFSYCGVGSEKYPDNKPLGYPFDRKIYSNDFYTPNMYFKDVIIIF

HKKYDEVGVQGH

2231297 Cr p2 (SEQ ID NO: 121)

INEIHSIIGLPPFVPPSRRHARRGVGINGLIDDVIAILPVDELKALFQE
KLETSPDFKALYDAIRSPEFQSIISTLNAMQRSEHHQNLRDKGVDVD

32. On page 80, please replace all of the text on page 80 with the following text:

HFIQLIRALFGLSRAARNLQDDLNDLHSLSPRHRHGLPRQRRR
SARVSAYLHADDFHKIITTIEALPEFANFYNFLKEHGLDVVDYINEI
HSIIGLPPFVPPSRRHARRGVGINGLIDDVIAILPVDELKALFQEKLET
SPDFKALYDAIRSPEFQSIISTLNAMPEYQELLQNLRDKGVDVDHFI
RVDQGTLR TLSSGQRNLQDDLNDLALIP TDQILAIAMDYLANDAE
VQELVAYLQSDDFHKIITTIEALPEFANFYNFLKEHGLDVVDYINEI
HSIIGLPPFVPPSRRHARRGVGINGLIDDVIAILPVDELKALFQEKLET
SPDFKALYDAIDLRSSRA

MIGKIVIVIEAVATTHAAITQRVPIYKIVIVINTQYAGTKIGN
QNFLTVDSTSCNVVVASQECVGGACVCPNLQKYEKLKPKYISDG
VQVKEEDIGSAVGRGHDSITISNLTISQQDIVTADLTSQLVCHSA
DVVVGLAAPGCPNALKGGKIVLENFVEENTAPVESIIHAREQDGEH

EGEIIFFGGSDWKYVDGEFTYVPLVGDDSWKFRLDGVKIGDTTVAPA
GTQAIIIDTSKAIIVGPKAYVNPINEAIGCVVEKTTTTRICKLDCSKIPS
LPDVTFVINGRNFNISQYYIQQNGNLCYSGFQPCGHSDDHFFIGDFF
VDHYYSEFNWENKTMGFGRSVE
SV

1705483 Bl a g 4 (SEQ ID NO: 123)

AVLALCATDTLANEDCFRHESLVPNLDYERFRGSWIIAAGTSEALT
QYKCWIDRFSYDDALVSKYTDSQGKNRRTTIRGR TKFEGNKFTIDYN
DKGKAFSAPYSVLATDYENYAIVEGCPAAANGHVIIYVQIRFSVRRF
HPKLGDKEMIQHYTLDQVNQHKKAIEEDLKHFNLKYEDLHSTCH

2326190 Bl a g 5 (SEQ ID NO: 124)

YKLTYPVKALGEPFIRFLLSYGEKDFEDYRFQEGDWP NLKPSMPFG
KTPVLEIDGKQTHQSVAISRYLGKQFGLSGKDDWENLEIDMIVDTIS
DFRAAIIANYHYDADENSKQKKWDPLKKETIPYYTKKFDEVVKANG

Applicants submit that a marked up version of the above amended pages is enclosed herewith.

Applicants further submit that, as required by 37 C.F.R. §1.821 (g), that the enclosed submission includes no new matter.

Respectfully submitted,

Date: _____

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